US005238963A

United States Patent [19]

Cerami et al.

[11] Patent Number: 5,238,963

[45] Date of Patent: * Aug. 24, 1993

[54] METHOD AND AGENTS FOR INHIBITING PROTEIN AGING

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[*] Notice: The portion of the term of this patent subsequent to Jul. 7, 2009 has been disclaimed.

[21] Appl. No.: **805,200**

[22] Filed: **Dec. 10, 1991**

Related U.S. Application Data

[60] Division of Ser. No. 481,869, Feb. 20, 1990, Pat. No. 5,128,360, which is a continuation-in-part of Ser. No. 220,504, Jul. 18, 1988, abandoned, which is a division of Ser. No. 798,032, Nov. 14, 1985, Pat. No. 4,758,583, which is a continuation-in-part of Ser. No. 590,820, Mar. 19, 1984, Pat. No. 4,665,192.

[51] **Int. Cl.**[5] **A61K 31/155**

[52] **U.S. Cl.** **514/632**; 514/866

[58] **Field of Search** 514/400, 632, 634, 866

[56] **References Cited**

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[57] **ABSTRACT**

The present invention relates to compositions and methods for inhibiting protein aging. Accordingly, a composition is disclosed which comprises an agent or compound capable of inhibiting the formation of advanced glycosylation end products of target proteins by reacting with the carbonyl moiety of the early glycosylation product of such target proteins formed by their initial glycosylation. Suitable agents may contain an active nitrogen-containing group, such as a hydrazine group. Particular agents comprise aminoguanidine, α-hydrazinohistidine and mixtures thereof. The method comprises contacting the target protein with the composition. Both industrial and therapeutic applications for the invention are envisioned, as food spoilage and animal protein aging can be treated.

3 Claims, 5 Drawing Sheets